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ABSTRACT

Questions as to the nature of sign and symbol processes and the functions and behavioral consequences of human significant phenomena are of central concern in semiotics and communication. These matters continue to be of critical importance and are still largely unresolved. Scholars in both areas of inquiry have sought unification of scientific thought relative to socio-behavioral phenomena. Cross-disciplinary unification, around the notions of dynamic, organization maintaining, and elaborate structures in particular have been suggested in the works of general systems theory. Developments in human communication theory, which draw on systems theory, underscore factors which have impeded progress toward the development of more generic concepts of sign/symbol processes and their relationship to human behavior, and suggest, at the same time, alternative conceptualizations of these phenomena. A skeletal taxonomy of human communications systems, in which the concepts of personal and social communication are central, is presented and discussed, providing one example of an integrative framework for conceiving of sign/symbol processes and their role in human behavior in a general, interdisciplinary fashion. (Author)

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HUMAN COMMUNICATION, SEMIOTICS, AND GENERAL SYSTEMS: PERSONAL AND SOCIAL COMMUNICATION

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Abstract

Questions as to the nature of sign and symbol processes and the functions and behavioral consequences of human signification phenomena are of central concern in semiotics and communication. These matters continue to be of critical importance and are still largely unresolved. Scholars in both areas of inquiry have sought unification of scientific thought relative to socio-behavioral phenomena. Cross-disciplinary unification, around the notions of dynamic, organization maintaining and elaborating structures, in particular, have been suggested in the works of general systems theory.

Developments in human communication theory, which draw upon systems theory, underscore factors which have impeded progress toward the development of more generic concepts of sign/symbol processes and their relationship to human behavior, and suggest at the same time, alternative conceptualizations of these phenomena. A skeletal taxonomy of human communications systems, in which the concepts of personal and social communication are central, is presented and discussed, providing one example of an integrative framework for conceiving of sign/symbol processes and their role in human behavior in a generic, interdisciplinary fashion.

* * *

In Signs, Language and Behavior, Charles Morris wrote:

> There is wide disagreement as to when something is a sign. Some persons would unhesitatingly say blushing is a sign, others would not. There are mechanical dogs which will come out of their kennels if one claps one's hands loudly in their presence. Is such clapping a sign? Are clothes signs of the personality of those who wear them? Are punctuation marks signs? Are dreams signs? Is the Parthenon a sign of Greek culture? Disagreements are widespread; they show that the term 'sign' is both vague and ambiguous.
>
> This disagreement extends to many other terms which are commonly used in describing sign-processes. The terms

> 'express,' 'understand,' 'refer,' 'meaning,' would provide many instances. So would 'communication' and 'language.' Do animals communicate? Yes, run some answers, no, run others. We find the same diversity of replies if we ask whether thought or mind or consciousness is involved in a sign-process; whether a poem "refers" to what it "expresses"; whether men can signify what cannot be experienced; whether mathematical terms signify anything; whether language signs are preceded genetically by non-language signs; whether the elements in an undeciphered "dead" language are signs.*

It is perhaps a mixed blessing that nearly three decades later, the conceptual dilemmas which concerned Morris and his colleagues continue to be of critical importance, and remain essentially unresolved. Questions relating to the nature and definition of sign process, its relationship to symbols and symbolic processes, and the nature, functions, and outcomes of human signification processes continue to be provocative areas of study, and raise questions which are not only at the heart of semiotics and human communication, but of the entirety of the social sciences.

In spite of numerous and continual efforts, the aspiration of developing a comprehensive theory of signs, symbols, and signification processes and outcomes, which served as a goal for Morris in 1946, is still unachieved. Within communication, there have been some particularly significant contributions in this regard, and a basis for optimism does, perhaps, exist. As Eugen Bär (2) noted in a recent review article in Semiotica, communication, as conceived by scholars such as Jurgen Ruesch (44,45,46), Gregory Bateson (44,3), and Harley Shands (48), becomes a central organizing dimension around which a reformulation and possibly a reunification of the biological and social sciences is possible.

Working in a variety of traditionally distinct disciplines, other students of human behavior such as Kenneth Boulding (8), Hugh D. Duncan (17,18,19), Geoffrey Vickers (57,58), James G. Miller (37), Herbert Blumer (7), Erving Goffman (20,22), Alfred Korzybski (28), Wendell Johnson (25,26), Peter Berger

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* Morris, Charles, Signs, Language, and Behavior, New York: Prentice-Hall, 1946, Pp. 3-4.

(4,5), Lee Thayer (51,53,54), Joseph Church (15), George Kelley (27), Gordon Allport (1), José Delgado (16), John Spiegel (50) and others have contributed greatly to the development of a generic view of human communication which seems capable of providing the sort of unified and integrated framework for the behavioral sciences which reflects the intellectual thrust of both semiotics and traditional communication theory.

Recent developments in human communication, come largely in response to a recognition that information and communication processes are not appropriately conceived of as purposeful, sign-symbol packaging and transmitting behavior. Traditionally, concepts of the phenomenon have been reflective of the assumptions of unidirectional, stimulus-response, cause-and-effect paradigms, as with models of communication which suggest that an A communicates B to C through channel D with effect E. Another example of the traditions of unidirectional causality in information and communication thinking are models of sign/symbol processes defined in terms of an A which controls behavior toward a goal, in a manner similar to the way in which something else, B, would control behavior.

Frameworks of this variety have, of course, met with considerable success in the physical sciences, and have been pervasive and popular in the biosocial sciences in general, until recently. There is, now, largely as a result of work in general systems theory, a growing recognition that the paradigms which have been adapted from the physical sciences and applied to the biosocial sciences are essentially models of closed systems, having limited applicability to dynamic processes of living systems, where mutual causality, equifinality, and multifinality are present.

Traditional approaches to sign/symbol/signification processes have presented a number of difficulties characteristic of mechanistic frameworks. For one

thing, uni-directional conceptions lead to the conclusion that an interpreter of a particular sign/symbol, message, or information array is compelled by the sign/symbol to respond in a particular fashion which is determinable, predictable, and even controllable from a knowledge of the particular sign/symbol involved. Given this orientation, it has been difficult to account both for the diversity of response patterns to a single sign/symbol both by one individual over time and, that of a number of individuals at a particular instant.

The problems of static analysis, also characteristic of traditional approaches to the study of communication processes, remain another source of dissatisfaction:

> Not merely do signs have a certain signification at a given moment, but they have this signification only within the particular life history of their interpreters.... *1*

These and other conceptual difficulties have prompted the development of general system notions by scholars such as Ludwig von Bertalanffy (59,60), Anatol Rapoport (60,40), Kenneth Boulding (8), Magorah Maruyama (33), Roy Grinker, Sr. (23), James G. Miller (37), Walter Buckley (10,11), Ervin Laszlo (29,30,31,32), who provide the basic formulation of an alternative paradigm for conceiving of the complexities of human bio-social action.

In a framework fashioned after these and other baseline contributions, one can suggest that communication be defined as <u>the process of information metabolism</u>. *77* Such a definition implies that sign/symbol processes are of parallel importance to living organisms as those involved in the metabolism

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1 Morris, Charles, <u>Signs, Language and Behavior</u>, New York: Prentice-Hall, 1946, p. 187.

77 Elaboration of the concept of communication as the metabolism of information, and a more comprehensive explication of the nature and function of communication systems, is presented in Brent Ruben, "General System Theory: An Approach to Human Communication," <u>Approaches to Human Communication</u>, Richard W. Budd and Brent D. Ruben, eds., New York: Spartan-Hayden, 1972, and <u>Human Communication and General System Theory</u>, Brent D. Ruben and John Y. Kim eds., Rochelle Park, New Jersey: Hayden, 1975 (in press).

of matter-energy. In this light, communication should be understood to be essential to the birth, growth, development, change, evolution, and survival or death of all that is human.

In an elaboration of the basic notion of information metabolism, the concept of sign/symbol is important. For man, there are but two sorts of exchanges possible with the environment: those involving bio-physical interchanges and those involving sign/symbol transactions. While man is clearly not the only living organism that processes information about his milieu, nor is he the only animal who might be said to utilize a language, man alone has the capacity for the invention, accumulation, and attachment of meaning and significance--through sign/symbol processes--to the entirety of his biophysical and social environments, and to himself.

Unlike other non-sign/symbol-transacting animals, man uniquely has the capacity and necessity of accumulating information as knowledge, behavior, and culture for diffusion to and inculcation among his contemporaries and members of subsequent generations. Further, unlike other non-sign/symbol-transacting animals, man alone has the capacity and the necessity of acquiring membership in the various social collectivities upon which he depends, solely through the identification and internalization of the significant sign/symbol patterns of those social units.

For present purposes, then, the study of human communication systems, can be defined as the examination of the role of sign/symbols, sign/symbol-ization and sign/symbol internalization in the creation, maintenance, and change of all human individual and multi-person organization.

In order to further classify sign/symbol processes it is useful to utilize the following scheme for categorizing information-metabolizing systems based upon the sign/symbol functions involved. The first such classificatory unit

to be considered will be termed the individual system, and the second, the multi individual system. In examining the former, emphasis is placed upon what may be regarded as the psychological functions of sign/symbol processes. The processes at the first of these levels of analysis will be referred to as personal communication, and those at the second level, which reference sociocultural functions, social communication.

Personal Communication

Personal communication refers to the processes of sensing, making-sense of, and acting toward the objects and persons in one's milieu. It is the process by which the individual informationally adapts to and adapts in his environment.

As the individual organizes himself in and with his milieu, he develops ways of comprehending, seeing, hearing, understanding, and knowing his environment. What an individual becomes is a function of having organized oneself in particular ways with the objects and people in one's milieu. Largely as a consequence of this process, no two individuals will view the people or objects in their environment in exactly the same way. Gordon Allport (1) describes this fundamental process as becoming. General semanticists (14, 25,26,28) refer to this phenomenon as abstracting and speak in terms of a mapping of the territory. Lee Thayer (51,52) refers to this as in-formatio Peter Berger (4,5) characterizes the process as internalization.

From a variety of disciplinary viewpoints then, personal communication can be conceived of as that active process by which the individual comes to know and be in relationship in his world. Unlike lower animals who are genetically organized with their environments in relatively fixed and

determinant ways, man can and must organize himself. He can and must invent his rules for attaching significance and meaning to his milieu and the people in it. It is man's sign/symbol capacity which would seem to most clearly distinguish him from lower organisms, and which here serves to clarify the nature of personal communication.

The necessary condition for these complex adaptive functions may be termed sign/symbol integration, and understood to be a most basic and essential information metabolizing function of personal communication. It is simply that function which allows and compels the individual to organize himself with--to come to know, to map the territory--his milieu, and therefore to become what he is and will be.

At the level of analysis of the individual system, then, personal communication operates such that the individual is able to identify and integrate those biological, physical, interpersonal, and sociocultural sign/symbol patterns which form the reality to which one must adapt to and in.

Social Communication

Social communication is the process underlying what may be termed intersubjectivization, a phenomenon which occurs as a consequence of public sign/symbol-ization, and sign/symbol utilization and diffusion. It is through this information metabolizing process that the world we know is defined, labeled, and categorized, our knowledge of it shared and validated, and our behavior toward it and one another regularized and regulated. It is through this same process that multi-individual organization, social order, control and predictability are achieved. The most basic transaction of social communication is two or more persons organizing with one another, knowingly or not, to adapt to or adapt in their environment.

Because of the nature of human communication--and personal communication--achieving this goal involves the active participation in the invention, construction, and maintenance of a plethora of overlapping and non-over-lapping organizations. Such organization varies from the relatively simple sign/symbol interdependency patterns man creates and perpetuates with other passengers riding an elevator, to the extremely complex and varigated semiotic organizatio necessary to the emergence, continuity, and evolution of a society.

Clearly, then, the specific consequences of social communication may vary greatly from one multi-individual organization to the next in terms of complexity and function. The basic information-metabolizing processes by which these organizations are initiated and maintained, however, do not. When people organize with one another, in an elevator, a friendship, or a society, they discover, create, and share informational and behavioral realities in the form of sign/symbol conventions. In so doing the collective whole they define becomes more than a simple sum of the parts. It is this process of discovery, creation, sharing, socialization that is here termed intersubjectivization. Were there no intersubjective sign/symbol patterns, there could be no multi-individual organization. Thus, "values," "norms," "knowledge," and "culture" may all be regarded as instances of intersubjectivated sign/symbol reality structures, defined and diffused through social communication.

> The recognition that culture is largely a sign configuration suggests at once that the transmission of culture is mainly effected by the transmission of signs from the existing members of the society to the young or to those who enter the societies. It is by instilling in the members of a culture the designations, appraisals, and prescriptions characteristic of that culture that society gains its major control over the individual. For through the induction of the individual into the interpersonal signs of the culture, the individual comes to appraise himself and others and to prescribe to himself and to others in ways born out of, and so congenial to, the society to which he belongs.§

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§ Morris, Charles, Signs, Language and Behavior, New York: Prentice-Hall, 1946, p. 207.

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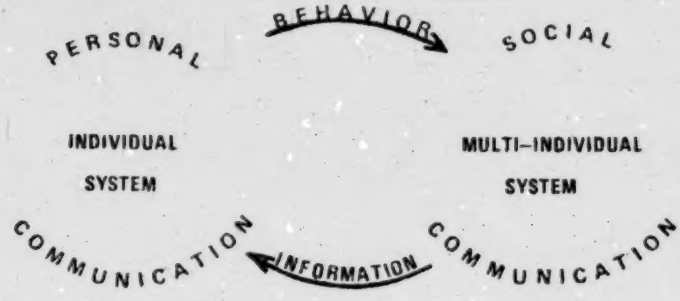
Broadened in scope and understood to apply not only to society, but indeed to all multi-individual systems, Morris' characterization underscores the sense in which social communication--reality definition, standardization, and diffusion--can be viewed as both necessary and sufficient conditions for social organization and joint-adaptation. The primary function of joint-adaptation can be further delineated, and the sense in which social communication serves particular biological, physical, and socio-cultural functions, elaborated.//

Fig. 1

Human Communication System



// The concepts of personal and social communication are further developed in "Personal, Social, and Mass Communication Processes in Individual and Multi-Individual Systems," in Human Communication and General Systems Theory, Brent D. Ruben and John Y. Kim, Rochelle Park, New Jersey, 1975 (in press).

The information-metabolizing functions of sign/symbol definition, standardization, diffusion, and integration are collectively as basic to the individual-multi-individual suprasystem, as sensing, making sense of, and acting toward are to the individual system, and defining, standardizing, and diffusing are to the multi-individual system. Implied, is that what an individual becomes and can become is largely a consequence of how he or she organizes with the sign/symbol configurations of his or her milieu. Implied also is that the patterns with which the individual organizes, are consequence of the activities of multi-individual system information-metabolizing processes which in turn, are consequences of the social integration of the communicative behaviors of the individual constituents.

This framework defines a dynamic, interpenetrating, co-determining, and mutually-causal relationship between individual and multi-individual system, such that the individual is understood to be a product of his adaptations to the prescriptions of the multi-individual systems in which he has been and is affiliated during the course of his lifetime. Those multi-individual units, a themselves, the composite of the behavioral configuration of their constituent Telescoping the level of analysis, yields a perspective on the whole of human bio-social enterprising where men are linked one to another, to the past and the future, through these fundamental processes of sign/symbol metabolism.

Metatheoretical Considerations

While the framework outlined in the foregoing is, I believe, significant in terms of the perspective it affords on sign/symbol processes and functions and their relationship to human individual and social behavior, what is perhaps of greater importance for these purposes is the potential for cross-disciplinary unification it suggests and demands. Despite continuing

protestations, scholars of human behavior, and of communication and communicati related phenomena in particular, have been generally unsuccessful in fostering the development, refinement, or utilization of multi-disciplinary frameworks where considerations relative to the categorization, storage, transfer and retrieval of information are linked to considerations relative to the human individual and social processes central to the selection, valuing, and ultimate utilization of that information.

Whether this is based in our desire for a sort of intellectual territoriality, our strivings for disciplinary legitimacy, or a series of accidents of history,matters little. For those of us whose focus of study is referenced by such key words as signs, symbols, semiotics, communication, messages, or information, the goal of intellectual unification is not merely a luxury, but indeed a necessity if we are to achieve the desired respectabilit validity, and recognition as a significant and viable area of academic study. Critical examination of sign/symbol processes without regard to the processes of human communication, and vice versa, is scholarship in a vacuum. The intellectual marriage of information and behavior is long overdue.

References

(1) Allport, Gordon W. Becoming, New Haven: Yale University, 1955.

(2) Bar, Eugen. "Semiotic Approaches to Human Behavior," Semiotica, Vol. 8, No. 2, 1973.

(3) Bateson, Gregory. Steps to an Ecology of the Mind, New York: Ballantine Books, 1972.

(4) Berger, Peter L.; Luckmann, Thomas. The Social Construction of Reality, Garden City, New York: Doubleday, 1966.

(5) Berger, Peter L. The Sacred Canopy, Garden City, New York: Doubleday, 1969.

(6) Berlo, David K. The Process of Communication, New York: Holt, Rinehart, and Winston, 1969.

(7) Blumer, Herbert. Symbolic Interactionism, Englewood Cliffs: Prentice-Hall, 1969.

(8) Boulding, Kenneth. "General System Theory--Skeleton of Science," Management Science, Vol. 2, 1956.

(9) Brown, Roger. Words and Things, New York: Free Press, 1958, 1968.

(10) Buckley, Walter. Modern Systems Research for the Behavioral Scientist, Chicago: Aldine, 1968.

(11) Buckley, Walter. Sociology and Modern Systems Theory, Englewood Cliffs, New Jersey: Prentice-Hall, 1967.

(12) Budd, Richard W.; Ruben, Brent D. Approaches to Human Communication, Rochelle Park, New Jersey: Spartan-Hayden, 1972.

(13) Budd, Richard W.; Ruben, Brent D. Communication and Social Change, Rochelle Park, New Jersey: Hayden (In press).

(14) Budd, Richard W. "General Semantics: An Approach to Human Communication," in Approaches to Human Communication, Rochelle Park, New Jersey: Spartan-Hayden, 1972.

(15) Church, Joseph. Language and the Discovery of Reality, New York: Vintage Books, 1961.

(16) Delgado, Jose M.R. Physical Control of the Mind, New York: Harper and Row, 1969.

(17) Duncan, Hugh D. Symbols in Society, New York: Oxford University Press, 1962.

(18) Duncan, Hugh D. Communication and Social Order, New York: Oxford University Press, 1962.

(19) Duncan, Hugh D. Symbols and Social Theory, New York: Oxford University Press, 1969.

(20) Goffman, Erving. Relations in Public, New York: Basic Books, 1972.

(21) Goffman, Erving. The Presentation of Self in Everyday Life, Garden City, New York: Doubleday, 1959.

(22) Goffman, Erving. Strategic Interaction, Philadelphia: University of Pennsylvania Press, 1969.

(23) Grinker, Roy R., Sr. Toward a Unified Theory of Behavior, New York: Basic Books, 1956, 1967.

(24) Holzner, Burkart. Reality Construction in Society, Cambridge, Mass.: Schenkman, 1966.

(25) Johnson, Wendell. People in Quandaries, New York: Harper, 1946.

(26) Johnson, Wendell; Moeller, Dorothy. Coping with Change, New York: Harper and Row, 1972.

(27) Kelley, George A. A Theory of Personality, New York: Norton, 1955, 1963.

(28) Korzybski, Alfred. Science and Sanity, Lakeville, Conn.: International Non-Aristotelian Library, 1933, 1948.

(29) Laszlo, Ervin. System, Structure, and Experience, New York: Gordon and Breach, 1969.

(30) Laszlo, Ervin. The Relevance of General Systems Theory, New York: Braziller, 1972.

(31) Laszlo, Ervin. The Systems View of the World, New York: Braziller, 1972.

(32) Laszlo, Ervin. Introduction to Systems Philosophy, New York: Harper and Row, 1972.

(33) Maruyama, Magorah, "The Second Cybernetics," American Scientist, Vol. 51, 1963.

(34) Maslow, Abraham H. Toward a Psychology of Being, New York: Van Nostrand, 1968.

(35) Maslow, Abraham H. Motivation and Personality, New York: Harper and Row, 1954, 1970.

(36) McHugh, Peter. Defining the Situation, Indianapolis: Bobbs-Merrill, 1968.

(37) Miller, James G. "Living Systems," Behavioral Science, Vol. 10, 1965.

(38) Morris, Charles. Signs, Language and Behavior, New York: Prentice-Hall, 1946.

(39) Quill, William G. Subjective Psychology, New York: Spartan-Hayden, 1972.

(40) Rapoport, Anatol. "Man--The Symbol User," in Communication: Ethical and Moral Issues, Lee Thayer (Ed.), New York: Gordon and Breach, 1973.

(41) Rogers, Carl. On Becoming a Person, Boston: Houghton-Mifflin, 1961.

(42) Ruben, Brent D.; Kim, John Y. Human Communication and General Systems Theory, Rochelle Park, N.J.: Hayden, 1975, (in press).

(43) Ruben, Brent D. "General System Theory," in Approaches to Human Communication, Rochelle Park, New Jersey: Spartan-Hayden, 1972.

(44) Ruesch, Jurgen; Bateson, Gregory. Communication: The Social Matrix of Society, New York: Norton, 1951.

(45) Ruesch, Jurgen; Kees, Weldon. Nonverbal Communication, Stanford: University of California Press, 1956, 1972.

(46) Ruesch, Jurgen. Therapeutic Communication, New York: Norton, 1961.

(47) Schroder, Harold M.; Driver, Michael J.; Streufert, Seigfried. Human Information Processing, New York: Holt, Rinehart and Winston, 1967.

(48) Shands, Harley C. Thinking and Psychotherapy, Cambridge, Mass.: Harvard University Press, 1960.

(49) Smith, Alfred G. Communication and Culture, New York: Holt, Rinehart and Winston, 1966.

(50) Spiegel, John. Transactions, New York: Science House, 1971.

(51) Thayer, Lee. Communication and Communication Systems, Homewood, Ill.: Irwin, 1968.

(52) Thayer, Lee. "Communication--Sine Qua Non of the Behavioral Sciences," in Vistas in Science, D.L. Arm, Ed., Albuquerque: University of New Mexico, 1968.

(53) Thayer, Lee. Communication: Concepts and Perspectives, New York: Spartan, 1967.

(54) Thayer, Lee. Communication: Theory and Research, Springfield, Ill.: Thomas, 1967.

(55) Thayer, Lee. Communication: General Semantics Perspectives, New York: Spartan.

(56) Thayer, Lee. Communication: Ethical and Moral Issues, New York: Gordon and Breach, 1973.

(57) Vickers, Geoffrey. Value Systems and Social Process, New York: Basic Books, 1968.

(58) Vickers, Geoffrey. "Is Adaptability Enough?" Behavioral Science, Vol. 4, 1959.

(59) Von Bertalanffy, Ludwig. General System Theory, New York: Braziller, 1968.

(60) Von Bertalanffy, Ludwig; Rapoport, Anatol, (Eds.) General Systems, 1956-1973.

(61) Westley, Bruce H.; MacLean, Malcolm S., Jr., "A Conceptual Model for Communication Research," Journalism Quarterly, Vol. 3, No. 4, 1957.

(62) Young, J.Z. Doubt and Certainty In Science, Oxford University Press, 1970.